

REMARKS / DISCUSSION OF ISSUES

Applicants have carefully reviewed and considered the final Office Action mailed on December 5, 2008 and the references cited therewith.

Claims 1, 8 and 13 are amended and claim 2 is canceled. With no claims being added, claims 1 and 3-13 are now pending in this application.

35 USC§102 Rejection of the Claims

The final office action rejects claims 1 and 13 under 35 U.S.C. §102(b) over Schaffer et al. (2002/0108113).

Applicants respectfully traverse this rejection. As explained below, claims 1 and 13 are patentable under 35 U.S.C. §102(b) over Schaffer et al.

Schaffer et al., in paragraph 0032, describes “nominal recommendation functions can then be multiplied by a fuzzy-now weighting function to yield the final recommendation function”. Further, Schaffer et al., in paragraphs 0029 and 0030, describes “Alternatively, the nominal recommendation may be based on any other suitable source such as a published critic or a service such as Tribune Media's Best Bets. In another alternative, the nominal recommendation may be based on some user input, such as the user having flagged a particular show as preferred. Still another alternative is to use collaborative filtering, whereby, when users who also watched X—like the present viewer—also watched Y, then Y can be recommended to the present viewer” and “A further alternative is that the nominal recommendation function can be a comparison to see if an event is partly described or categorized according to a keyword or set of keywords. In this case, the nominal recommendation function may have a value of one if the description of the event contains or matches the keyword or keywords and a value of zero otherwise, per equation (3) of FIG. 6. The available types of data relating to a real-time event typically include: title, start a time, duration, and a set of descriptive categories or

genres, e.g. sports, comedy, kids, movie, etc. Keyword type recommendations can include any or all of these categories to describe a single event. Furthermore, editorial recommendations, e.g. 1-4 star rating of a movie, may be part of such descriptions”, respectively. Furthermore, Schaffer et al., in FIG. 6, describes fuzzy-now based final recommendation functions. Also, Schaffer et al., in paragraphs 0053 and 0055, describes “FIGS. 2A& B show an embodiment of the application of “fuzzy-now” in choosing a television program to recommend in an EPG. The CPU 102 may execute the steps of this procedure. In FIG. 2 A, the user begins by requesting suggestions at 210. A program recommender then calculates a prioritized list of potential shows occurring “around now” at 211. The list is then displayed at 212. Ideally, the list is presented in “best-choice-first” order. This means the events with the highest weighted values are shown first. At 213, the user picks a show, and at 214, the system sends control signals to the tuner of the TV to set the corresponding channel for the show” and “At 202, the current time is retrieved. At 203, for each receivable station, data regarding the current show, S_c , is retrieved, then a nominal recommendation function value, R_c , is computed. How a recommendation score may be determined is discussed above in the section on analytical formulation of fuzzy-now. Optionally, data relating to the next show, S_n , on this current station is retrieved, with a recommendation, R_n , being computed for this next show. Finally, a final recommendation function value is calculated, as discussed above”, respectively.

In contrast, amended independent claims 1 and 13 recite “calculating for a plurality of content pieces a piece score, said piece score indicating a match of said content description with a profile”, “determining a plurality of sequences of content pieces, where said content pieces contained in said sequences are broadcast consecutively at said channels”, and calculating for said sequences a sequence score according to one or more rules, where according to each rule a correlation value representative of a correlation of the content description of at least two of the pieces contained in said sequence is calculated, based at least on said pieces scores of pieces contained in said sequence and on aid correlation value of the content descriptions of at least two of the pieces contained in said sequence for

program recommendation. This type of calculating for said sequences a sequence score according to one or more rules, where according to each rule a correlation value representative of a correlation of the content description of at least two of the pieces contained in said sequence is calculated, based at least on said pieces scores of pieces contained in said sequence and on aid correlation value of the content descriptions of at least two of the pieces contained in said sequence for program recommendation is not disclosed in Schaffer et al.

Claims 3-7 are patentable at least because they each depend directly or indirectly from a respective one of independent claims 1 and 13, all of which are patentable as explained above.

For at least the above reasons, applicants respectfully request that the 35 U.S.C. §102(b) rejection of claims 1 and 13 be withdrawn.

35 USC§103 Rejection of the Claims

The final office action rejects claims 2-7 under 35 U.S.C. §103(a) over Schaffer et al. (2002/0108113) in view of Pachet et al. (EP 1170722 A).

Applicants respectfully traverse this rejection. As explained below, claims 2-7 are patentable under 35 U.S.C. §103(a) over Schaffer et al. in view of Pachet et al.

Schaffer et al., in paragraph 0032, describes “nominal recommendation functions can then be multiplied by a fuzzy-now weighting function to yield the final recommendation function”. Further, Schaffer et al., in paragraphs 0029 and 0030, describes “Alternatively, the nominal recommendation may be based on any other suitable source such as a published critic or a service such as Tribune Media's Best Bets. In another alternative, the nominal recommendation may be based on some user input, such as the user having flagged a particular show as preferred. Still another alternative is to use collaborative filtering, whereby, when users who also watched X—like the present viewer—also watched Y, then Y can be recommended to the present viewer” and “A further alternative is that the nominal recommendation

function can be a comparison to see if an event is partly described or categorized according to a keyword or set of keywords. In this case, the nominal recommendation function may have a value of one if the description of the event contains or matches the keyword or keywords and a value of zero otherwise, per equation (3) of FIG. 6. The available types of data relating to a real-time event typically include: title, start a time, duration, and a set of descriptive categories or genres, e.g. sports, comedy, kids, movie, etc. Keyword type recommendations can include any or all of these categories to describe a single event. Furthermore, editorial recommendations, e.g. 1-4 star rating of a movie, may be part of such descriptions", respectively. Furthermore, Schaffer et al., in FIG. 6, describes fuzzy-now based final recommendation functions. Also, Schaffer et al., in paragraphs 0053 and 0055, describes "FIGS. 2A& B show an embodiment of the application of "fuzzy-now" in choosing a television program to recommend in an EPG. The CPU 102 may execute the steps of this procedure. In FIG. 2 A, the user begins by requesting suggestions at 210. A program recommender then calculates a prioritized list of potential shows occurring "around now" at 211. The list is then displayed at 212. Ideally, the list is presented in "best-choice-first" order. This means the events with the highest weighted values are shown first. At 213, the user picks a show, and at 214, the system sends control signals to the tuner of the TV to set the corresponding channel for the show" and "At 202, the current time is retrieved. At 203, for each receivable station, data regarding the current show, S_c , is retrieved, then a nominal recommendation function value, R_c , is computed. How a recommendation score may be determined is discussed above in the section on analytical formulation of fuzzy-now. Optionally, data relating to the next show, S_n , on this current station is retrieved, with a recommendation, R_n , being computed for this next show. Finally, a final recommendation function value is calculated, as discussed above", respectively.

Pachet et al., in Abstract, describes "compute music sequences in all possible contexts and situations, including: Internet adaptive radio, Digital Audio Broadcasting (DAB) with intelligent scheduling, music recommendation systems, and other innovative Electronic Music Distribution (EMD) services in general" and further

describes “generating incrementally a sequence of items from a database containing said items, characterised in that the sequence is generated by implementing in combination a sequence completion system and a user profiling system, thereby taking into account both sequence coherence and user profile”.

In contrast, amended independent claim 1 recites “accessing means for accessing program information, where said program information comprises for a plurality of broadcast channels where content pieces are broadcast, a broadcast time of said content pieces and a content description of said content pieces” and “selection means for selecting pieces of content within a time interval, said selection means being configured to calculate for a plurality of content pieces a piece score by matching the content description with a profile, determine a plurality of sequences of content pieces, where said content pieces in said sequence are broadcast consecutively at said channels, where said selection means are configured to calculate said sequence score according to one or more rules, where according to each rule a correlation value representative of a correlation of the content description of at least two of the pieces contained in said sequence is calculated, calculating for said sequences a sequence score, based at least on said piece scores of the pieces contained in said sequence and on said correlation values of the content descriptions of at least two of the pieces contained in said sequence and selecting at least one of said sequences according to said sequence score” for program recommendation.

Claims 3-7 depend directly or indirectly from amended independent claim 1, all of which are patentable as explained above.

Applicants respectfully assert that Schaffer et al. and Pachet et al. references fail to support a *prima facie* case of obviousness because, the cited references fail to teach or suggest all of the elements of the Applicants’ invention, such as “selection means being configured to, according to one or more rules”, “determine a plurality of sequences of content pieces, where said content pieces in said sequence are broadcast consecutively at said channels”, “calculate said sequence score according to one or more rules, where according to each rule a correlation value representative of a correlation of the content description of at least two of the pieces contained in

said sequence is calculated” and “calculating for said sequences a sequence score, based at least on said piece scores of the pieces contained in said sequence and on said correlation values of the content descriptions of at least two of the pieces contained in said sequence”.

For at least the above reasons, applicants respectfully request that the 35 U.S.C. §103(a) rejection of claims 2-7 be withdrawn.

Allowable Subject Matter

The final office action allows claim 8 and its dependent claims if rewritten or amended to overcome the possible 35 U.S.C. §101 rejection.

Applicants have amended independent claim 8 based on the Examiner's helpful comments. Therefore, amended independent claim 8 should be found allowable. Claims 9-12 depend directly or indirectly from amended independent claim 8, so they should also be found allowable. Accordingly, applicants respectfully request that the claims 8-12 be allowed.

In view of the foregoing, applicants respectfully request that the Examiner withdraw the objections and/or rejections of record, allow all the pending claims 1 and 3-13, and find the application in condition for allowance. If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the Applicants' attorney Eric Bram (Senior IP Counsel, Philips Intellectual Property and Standards, 345 Scarborough Road, Briarcliff Manor, NY 10510-8001) at 914-333-9635.

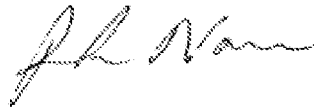
Respectfully submitted,

By their Representatives,

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